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# ON THE HORIZON

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## MODERNIZATION TRANSITION COMMITTEE RULING

Jim Packett, Meteorologist

On June 15, 1999, at a meeting in Evansville, IN, the Modernization Transition Committee (MTC) declared that there were four areas of degradation of services to counties in Southwest Indiana. These areas were as follows: radar coverage, spotter coordination, NOAA Weather Radio content and coverage, and alternative communications. The National Weather Service (NWS) was asked to develop plans to mitigate these areas of degradation.

Following are the mitigating actions to be taken:

1) **Radar Coverage** - Before the Spring 2000 severe weather season, a non-doppler c-band (5cm) weather radar will be installed and operational in the Evansville area with a monitoring system at the NWS office in Paducah. This will be an interim solution until Fall 2002 when a doppler weather radar can be purchased and installed. In the meantime, the NWS office in Paducah will be granted two temporary meteorologist positions to ensure that there will be around-the-clock monitoring of the additional radar data.

2) **Spotter Coordination** - Develop a core group (10-20) highly competent cooperative spotters in each of the 11 counties of Southwest Indiana. Most of these spotters would also be amateur radio operators and be available 24 hours a day. Implement special training programs for these spotters and invite them to annual severe weather seminars. The NWS office at Paducah will ensure that all Emergency Management personnel in this area will be invited to all appropriate meetings/training.

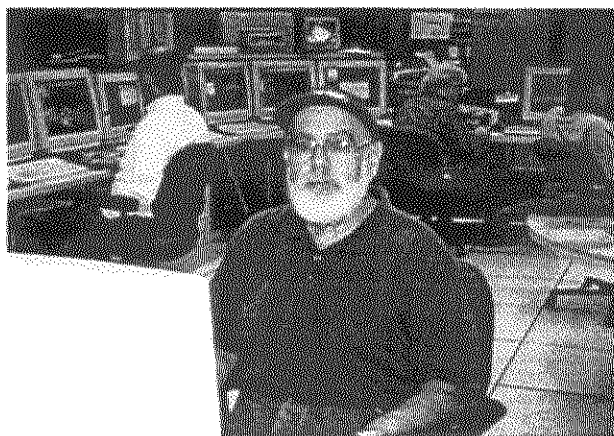
3) **NOAA Weather Radio** - Provide a test product called Thunderstorm Advisory Product on the Evansville, IN transmitter. Increase the reference to radar information in the Short Term Forecast. Provide specific information for the NWR listening area.

4) **Alternative Communication** - Evansville Emergency Management Agency Director will continue to search for an LP1 (Emergency Alert System) radio station.

## DROUGHT CONTINUES

Jim Packett, Meteorologist

A strong La Nina pattern has greatly affected the southern two thirds of the country since July, and as a result many areas in the heartland have suffered a significant drought. Interestingly enough, from January through June much of the region had above normal precipitation as well as temperatures. Then around the 1st of July, it's as if the water faucet was turned off. As of the time of this writing, here at the Paducah NWS office, we have received around 5 3/4 inches since July 1. The normal precipitation expected for this same period is around 16 inches. We are however only a little over 6 inches below normal at this time due to the several months of above normal precipitation between January and June. This lack of precipitation has kept the majority of the region in a moderate to severe drought according to the Palmer Drought Index. Most of the counties in our region imposed burn bans that have been in effect for weeks on end. Numerous wild fires have broken out across the area since the drought began and agricultural losses have exceeded 150 million dollars. The drought of 1999 will not soon be forgotten.



Goodbye Bob, we'll miss you  
For related story, see page 3.

## A SHINY NEW RADOME

Jim Packett, Meteorologist

Since mid-summer, passers-by on Highway 60 may have noticed that our radome has taken on a shiny new appearance. As part of a nationwide preventive maintenance project, our WSR-88D radome (the big white ball on the tower behind the office) recently got a face lift in the form of a new paint job. A special crew spent several days scaling the sides of the radome as well as checking and tightening all of the nuts and bolts on the radar tower. This was quite a dangerous undertaking because the crew had to be suspended from the top hatch of the radome by ropes, but all went well and without incident.

## 1999-2000 WINTER OUTLOOK IS STORMY FOR OUR REGION

by Michael York, Meteorologist

On October 26th, the Climate Prediction Center (CPC) released its outlook for the winter of 1999-2000 for the United States. By now, everyone has heard the terms "El Nino" and "La Nina". Both refer to abnormal sea surface temperature patterns in the equatorial Pacific Ocean. Such abnormalities affect the jet stream pattern over North America, which in turn affects the storm track over the United States. According to the CPC, La Nina will continue to maintain a powerful influence on the nation's weather this winter, just as it did last winter.

What exactly is the effect of La Nina here? The answer is far from simple. One thing is for sure: In our part of the U.S., La Nina brings active weather. There are two possible scenarios for a La Nina winter here, depending on sea surface temperature patterns in the North Atlantic. Similar to El Nino and La Nina in the Pacific, there is also a similar set of phenomena in the Atlantic called the "North Atlantic Oscillation (NAO)". Depending on whether the NAO is in a positive or negative phase, our winter here may be similar to last winter (1998-1999) or to the winter of 1995-96.

Last winter, La Nino co-existed with a positive

phase of the NAO. As expected, this resulted in an unusual amount of severe thunderstorm and tornado activity in our area. Major severe weather outbreaks occurred across portions of western Kentucky and southeast Missouri last January. There were more heavy precipitation events than normal, mainly in the form of rain and freezing rain. This is one of two possible scenarios for the coming winter.

Another possible scenario is if La Nina co-exists with a negative phase of the NAO. In this case, the storm track is frequently south of our area, which results in increased snowfall from Kansas eastward to Virginia. It also results in a wide variability of temperatures from month to month. This was the scenario during the winter of 1995-96, when our area received near normal seasonal snowfall and several arctic cold snaps. Although not long lasting, the extreme cold caused major ice jams on the Mississippi River as far south as the Ohio River. On the flip side, we also saw episodes of quiet weather. February of 1996 was one of the driest on record in our region.

According to the CPC, there is little skill in predicting the phase of the NAO prior to the start of the winter season. Regardless of the phase of the NAO, another memorable La Nina winter appears likely.

## RECENT VISIT FROM LOCAL U.S. SENATOR'S OFFICE

Jim Packett, Meteorologist

On August 19th, two staffers from U.S. Senator Mitch McConnell's office visited the Paducah NWS office. The two staffers were Mr. Scott O'Malia from Mr. McConnell's Washington D.C. Office and Mr. Tim Thomas from his Paducah office. The purpose of their visit was to assess weather services in general across western Kentucky and to become more familiar with National Weather Service products and services. Warning Coordination Meteorologist Rick Shanklin provided an in-depth tour of the office and provided them with all requested information.